Mercedes-Benz

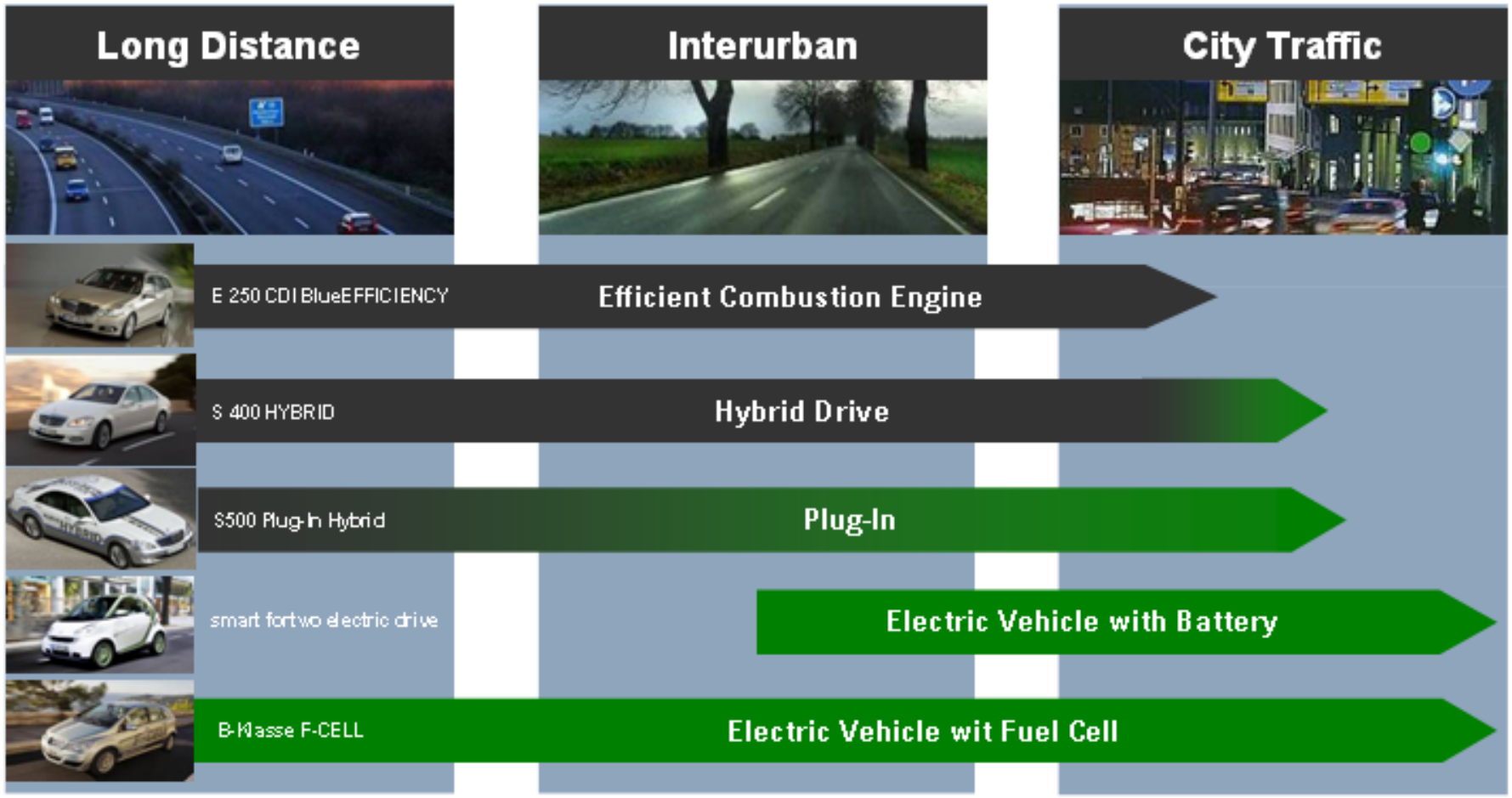
Status Update of Daimler's Fuel Cell Vehicle Activities in California

Mercedes-Benz RDNA, Inc.
John Tillman

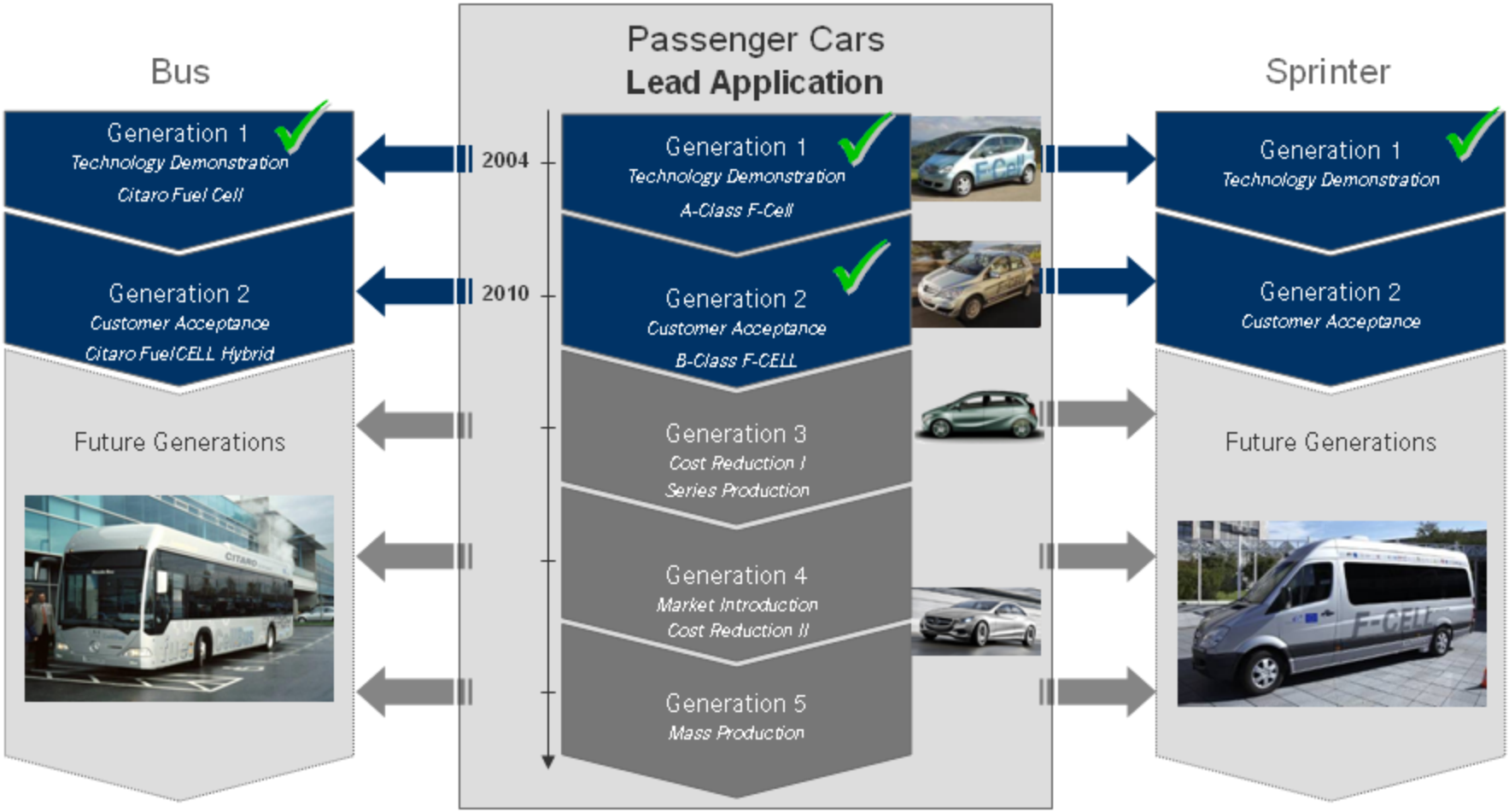
Presentation to the California Energy Commission
June 22, 2012

Drive Portfolio for the Mobility of Tomorrow

Different mobility scenarios



Daimler's Fuel Cell Technology Roadmap



Daimler is dedicated to commercialize electric vehicles with fuel cell

Vehicle Deployments in California

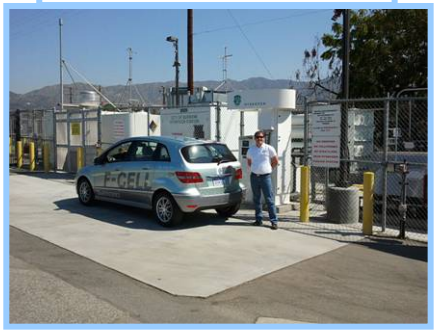
F-Cell Customers Depend On Existing Hydrogen Stations

- 44 F-CELLs customers as of June 2012
- 5 stations accessible to them
- Special Access at LAX station given lack of 700 bar station in West LA/Santa Monica

Newport Beach: 33 Users

UC Irvine: back-up station

Burbank: 4 Users



Torrance: 33 Users

Santa Monica Blvd (350 bar): 15 Users

More cars have not been deployed due to lack of stations and limited station capacity

F-Cell Customer Fueling Options in Southern CA

	Station
1	UC Irvine
2	Torrance
3	West LA
4	Fountain Valley
5	Newport Beach
6	Burbank
7	CSU LA
8	Harbor City

- F-Cell fleet timed to arrive at same time as ARB and CEC Station Deployments
- Stations did not arrive as promised. Result: chronic complaints from F-Cell customers
- Not able to deploy F-Cells to Beverly Hills area (#1 market in CA). Cause: area stations 2 years late!

October 10, 2010 : CEC PON-09-608 Notice of Award

STATE OF CALIFORNIA – NATURAL RESOURCES AGENCY — ARNOLD SCHWARZENEGGER, Governor

CALIFORNIA ENERGY COMMISSION
1516 NINTH STREET
SACRAMENTO, CA 95814-5512
www.energy.ca.gov

NOTICE OF PROPOSED AWARD

Alternative and Renewable Fuel and Vehicle Technology Program
Grant Solicitation PON-09-608
Hydrogen Fuel Infrastructure

October 21, 2010

On June 2, 2010, the California Energy Commission (Energy Commission) released a Grant Solicitation Application Package entitled "Hydrogen Fuel Infrastructure" under the Alternative and Renewable Fuel and Vehicle Technology Program. This grant solicitation was an offer to fund projects that develop infrastructure necessary to dispense hydrogen transportation fuel. The grant solicitation announced that the maximum funding available for this solicitation was $19.0 million.

The attached table, "Notice of Proposed Awards", identifies each applicant selected and recommended for funding by the Energy Commission's Transportation Committee, the amount of recommended funding, and scoring information. This notice is being mailed to all parties who submitted a proposal to this solicitation and is also posted on the Energy Commission's web site at: http://www.energy.ca.gov/contracts/index.html.

Funding of proposed projects resulting from this solicitation is contingent upon the approval of these projects at a publicly noticed Business Meeting at the Energy Commission in Sacramento, California.

Questions should be directed to: Jason Williams, Grants Officer
(916) 654-458

California Energy Commission
Alternative and Renewable Fuel and Vehicle Technology Program
Solicitation PON-09-608
Hydrogen Fuel Infrastructure
Notice of Proposed Awards

Proposal Number	Applicant	Project Title	Total Funds Requested	Cost Share Requested	Total Proposed Award	Eligible Cost Share	Proposed Award Per Station	Score	Rank
Proposed Awards									
			$16,33						
		Individual Station Locations & Proposed Award Amount:							
		UC Irvine Station located at 19172		75%		66%	$1,062,214.00		
							$1,1		
		Beverly Hills Station located at 1004 S la Cienega Boulevard, Los Angeles, CA 9035		75%		66%	$1,080,222.00	78.1%	Awarded
		West Los Angeles Station located at 11251 Santa Monica Boulevard, Los Angeles, CA 90025		75%		66%	$1,076,849.00	78.1%	Awarded
		Hermosa Beach Station located at 1131 Pacific Coast Highway, Hermosa Beach, CA 90254		75%		66%	$1,088,786.00	78.6%	Awarded
		Irvine North Station located at 4162 Trabuco Road, Irvine, CA 92620		75%		60%	$1,016,669.00	76.6%	Awarded
		Diamond Bar Station located at 21866 E. Copley Drive, Diamond Bar, CA 91765		75%		66%	$1,072,482.00	78.7%	Awarded
		Hawthorne Station located at 5230 Rosecrans Avenue, Hawthorne, CA 90250		75%		60%	$993,786.00	78.1%	Awarded
		Laguna Hills Station located at 23971 El Toro Road, Laguna Hills, CA 92653		75%		60%	$0.00	72.9%	Not Awarded[7]
		Cardiff Station located at 820 Birmingham Drive, Cardiff, CA 92007		75%		60%	$0.00	68.7%	Did Not Pass
2	South Coast Air Quality Management District	The South Coast Air Quality Management District (AQMD) Hydrogen Station	$1,466,636.00						
		Diamond Bar Station located at 21865 Copley Drive, Diamond Bar, CA 91765		50%		50%	$0.00	79.0%	Not Awarded[7]
3	South Coast Air Quality Management District	City of Burbank Hydrogen Station	$940,000.00						
		City of Burbank Public Works Yard Station located at 124 S. Lake Street, Burbank, CA		52%		52%	$0.00	64.7%	Did Not Pass
4	Linde LLC	Linde West Sacramento and Laguna Niguel Hydrogen Fueling Stations	$3,396,209		$3,396,209				
		Individual Station Locations & Proposed Award Amount:							
				65%		65%	$1,775,133	.7%	Awarded
									Awarded
5	Airport Commission, City and County of San Francisco	SFO West Bay Hydrogen Fueling Complex	$667,003		$667,003				
		Project location: At the south boundary of San Francisco international Airport property adjacent to Millbrae and the Route 101 Freeway		19%		19%	$667,003	78.7%	Awarded
TOTAL FUNDS RECOMMENDED			$22,706,287.00		$12,448,083.00		$12,448,083.00		

[7] Station not funded due to higher scoring proposal for same

Expiration Date: 11/1/2010

OEM's expectation in 2010:

~ 10 additonal stations by January 2012

2012 Reality:

Stations will begin slowly coming online January 2013 (best case scenario)

BUT Santa Moncia is not first priority!

Questions Posed by the CEC for the Workshop

- What is the best approach for selecting site locations for stations in the future?
- What defines the optimal hydrogen station location?
- How would you recommend to get your market data into the CEC selection process for hydrogen station location?

What is the best approach for selecting site locations for stations in the future?

The CaFCP Roadmap document identifies hydrogen station locations which are seen by industry to have a very high value.

Selecting station sites using these recommendations is a good starting point.

Communication with the CaFCP OEM Working Group is encouraged.

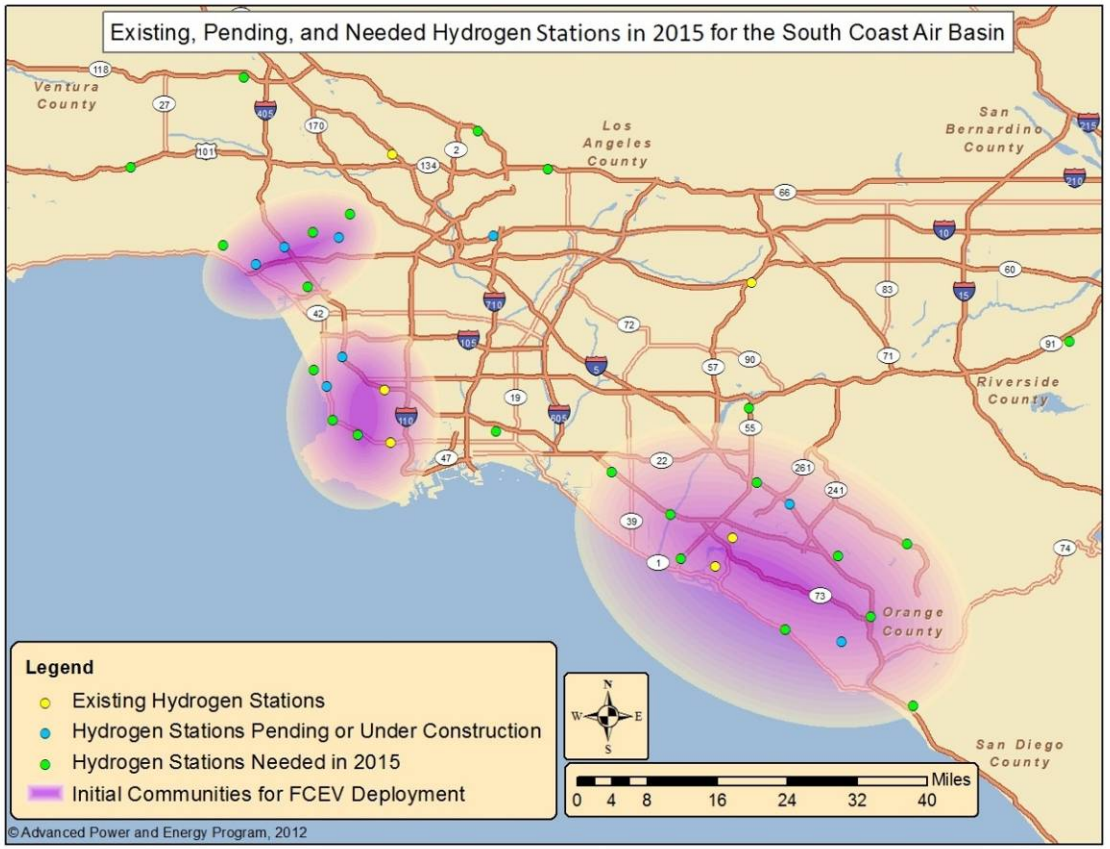


Figure AA Clusters in Greater Los Angeles Area

What defines the optimal hydrogen station location?

The optimal hydrogen station location is often hard to determine, and the method for determining the optimal location varies with each location. The process is not black and white.

For past PONs, the CaFCP OEM Working Group considered data such as, but not limited to: customer data, hand raiser data, commute patterns, traffic patterns, gasoline sales volume, space availability, proximity to freeways, proximity to major arterials, site visits, personal experience with the area, etc.

For best results, Communication with the CaFCP OEM Working Group to determine the optimal location for a hydrogen station is encouraged.

How would you recommend to get your market data into the CEC selection process for hydrogen station location?

For past PONs, each CaFCP OEM Working Group member independently considered internal and publicly available market data to determine which projects should get their support. Once completed, the CaFCP facilitated the aggregation of the individual OEM support into a consensus based Joint Letter of Support.

While Letters of Support may no longer be desired, this collaborative process which created them was highly successful and effective at determining the priority station locations.

It is the opinion of Mercedes-Benz that with slight modifications to the PON process, the requested data can be delivered in a way that satisfies their need for data, while giving the OEMs confidence that their station deployment needs will be met. This can be best done by open discussions.

Customer Expectations for Hydrogen Stations

Regardless of the process by which station projects are selected, the stations themselves must meet the expectations of future fuel cell vehicle customers in order to be truly successful.

Below are capabilities which must offered by future stations:

- Provide SAE J2601 H70 Type A Fills (including -40C precooling)
- Provide SAE J2601 H35 Type B Fills (including -20C precooling)
- Meet SAE J2719 fuel quality specifications
- Offer multiple dispensers per station, and both pressures at each dispenser
- Point of sale capable
- No access agreements or other contracts

Mercedes-Benz